DVP-S300/S305/S315

RMT-D103E/105A/105P

SERVICE MANUAL

Self Diagnostics Supported model

US Model
DVP-S300

E Model
DVP-S300/S305

AEP Model
DVP-S315

UK Model
DVP-S315

Chinese Model
DVP-S305

Taiwan Model
DVP-S305

Singapore Model
DVP-S305

SPECIFICATIONS

CD/DVD player

Signal format system PAL/ (NTSC): DVP-A305/S315
NTSC : DVP-S300

Audio characteristics

Frequncy response DVD (PCM 96 kHz): 2 Hz to 44 kHz (+0.5 dB, –2.0 dB)
DVD (PCM 48 kHz): 2 Hz to 22 kHz (±0.5 dB)
CD: 2 Hz to 20 kHz (±0.5 dB)

Signal-to-noise ratio More than 107 dB (LINE OUT (AUDIO) connectors only)

Harmonic distortion Less than 0.0028%

Dynamic range More than 100 dB (DVD)
More than 97 dB (CD)

Wow and flutter Less than detected value (±0.001% W PEAK)

Outputs and inputs

	jack type	Output level	Load impedance
LINE OUT (AUDIO)	Phono jacks	2 Vrms (at 50 kilohms)	Over 10 kilohms
DIGITAL OUT (OPTICAL)	Optical output connector	–18 dBm	Wave length: 660 nm
DIGITAL OUT (COAXIAL)	Phono jacks	0.5 Vp-p	75 ohms terminated
LINE OUT (VIDEO)	Phono jack	1.0 Vp-p	75 ohms, sync negative
S VIDEO OUT	4-pin mini DIN	Y: 1.0 Vp-p C: 0.3 Vp-p	75 ohms, sync negative 75 ohms terminated
PHONES	Phone jack	12 mW	32 ohms

General

Power requirements 220 – 240 V AC, 50 Hz: DVP-S305/S315
120 V AC, 60 Hz: DVP-S300

Power consumption 22 W: DVP-S305/S315
20 W: DVP-S300

Dimensions (approx.) 430 × 95 × 325 mm (17 × 3 3/4 × 12 7/8 in.) (w/h/d): DVP-S300/S315
430 × 95 × 330 mm (w/h/d): DVP-S305 incl. projecting parts

Mass (approx.) 4.0 kg (8 lb 13 oz)

Operating temperature 41 °F to 95 °F (5 °C to 35°C)

Operating humidity 5% to 90%

Supplied accessories

- Audio/video/S-link connecting cord (1) (DVP-S300: US)
- Audio/Video connecting cord (1) (DVP-S300: E/S305/S315)
- S video cable (1)
- Remote commander (remote) RMT-D103E (1) (DVP-S305)
- Remote commander (remote) RMT-D105A (DVP-S300)
- Remote commander (remote) RMT-D105P (DVP-S315)
- sony R6 (size AA) batteries (2)

Design and specifications are subject to change without notice.

DVD VIDEO COMPACT disc DIGITAL VIDEO **CD/DVD PLAYER**

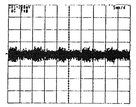
MICROFILM

SONY®

TK-47 (RF, SERVO) SCHEMATIC DIAGRAM
– Ref. No.: TK-47 board; 3,000 series –

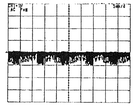
• Waveforms

❶ IC006 ⑭ – ⑯ (DVD play)



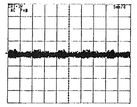
270 mVp-p (V)

❷ IC006 ⑭ – ⑯ (DVD play)



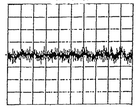
1.2 Vp-p (V)

❸ IC006 ⑭ – ⑯ (DVD play)



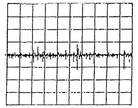
800 mVp-p (V)

❹ IC005 ⑬ (CD play)



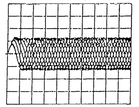
500 mV/DIV 1 ms/DIV

❺ IC005 ⑬ (CD play)



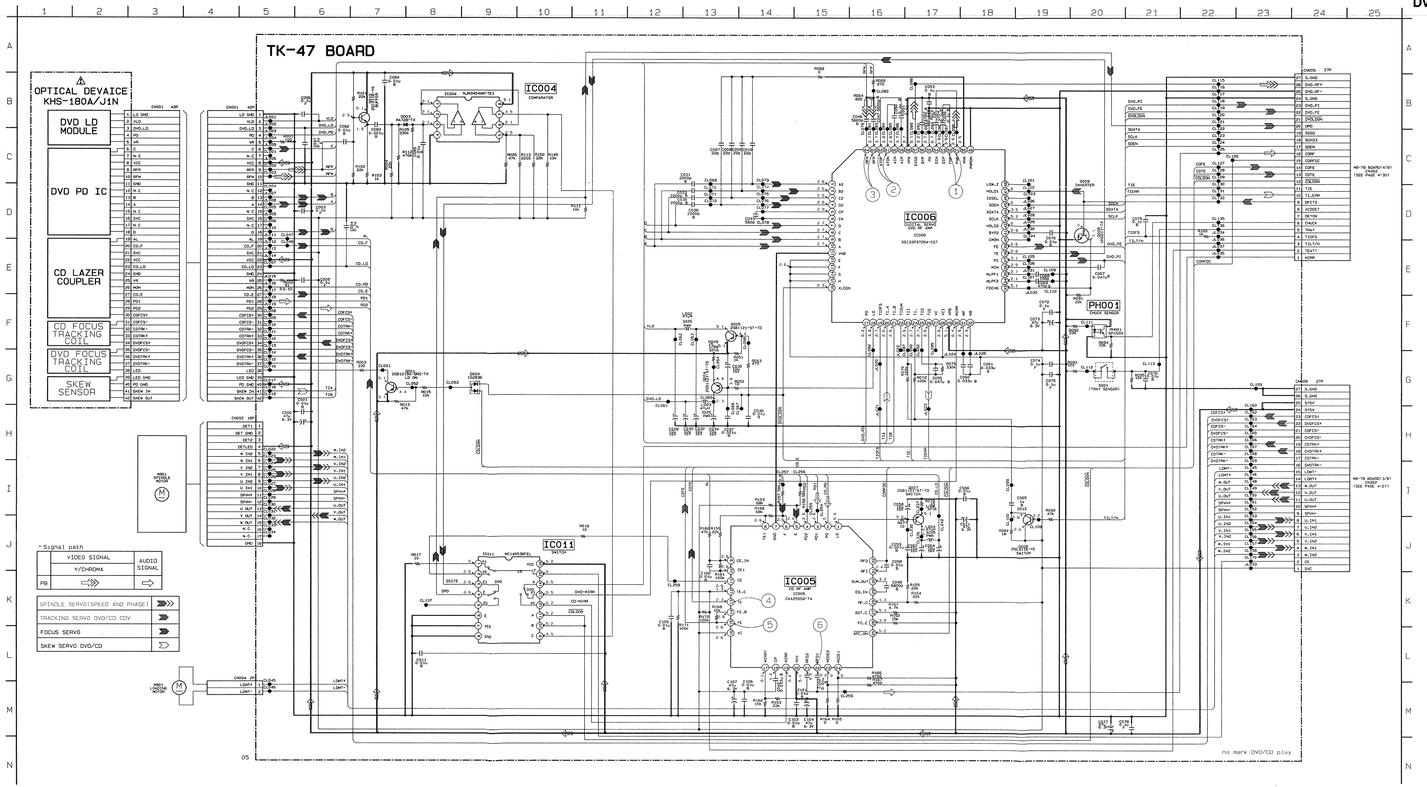
500 mV/DIV 10 ms/DIV

❻ IC005 ⑱ (CD play)



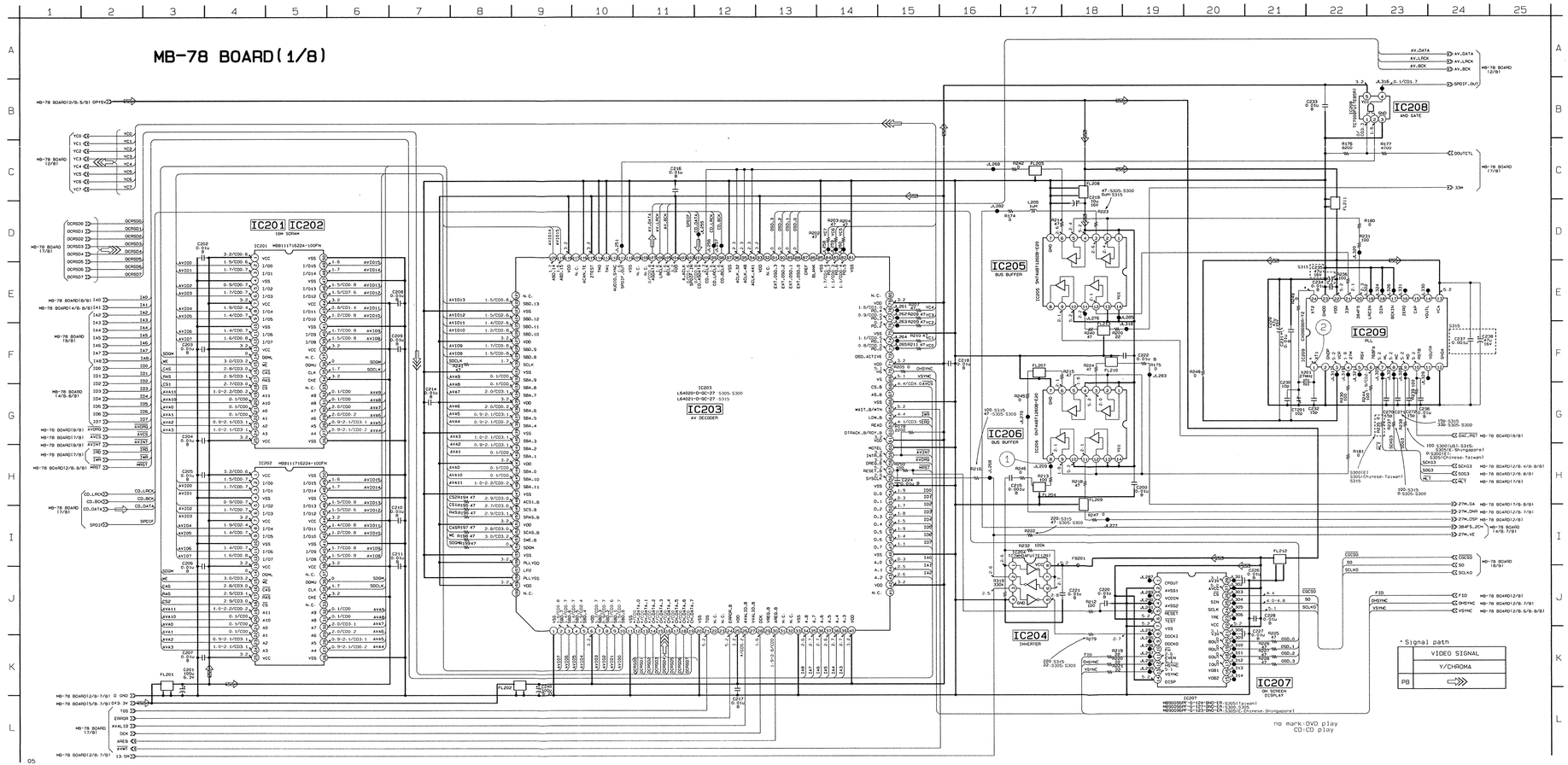
500 mV/DIV 1 µs/DIV

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.



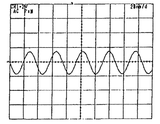
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

MB-78 (AV DECODER) SCHEMATIC DIAGRAM
– Ref. No.: MB-78 board; 1,000 series –



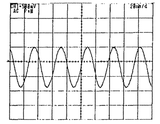
• Waveforms

❶ IC206 ⑥



3.28 Vp-p 27 MHz

❷ IC209 ①



1.4 Vp-p 27 MHz

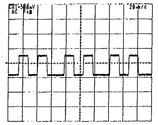
AV DECODER
MB-78 (1/8)

MB-78 (VIDEO ENCODER) SCHEMATIC DIAGRAM • See page 4-12 to 4-16 for printed wiring board.

– Ref. No.: MB-78 board; 1,000 series –

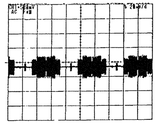
• Waveforms

❶ IC252 ㉔



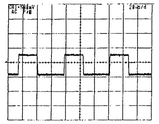
0.7 Vp-p

❺ IC252 ㉘



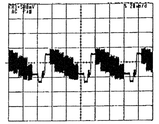
0.7 Vp-p

❷ IC252 ㉒



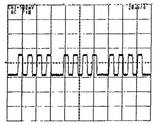
0.7 Vp-p

❻ IC252 ㉖



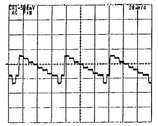
1.1 Vp-p

❸ IC252 ㉚



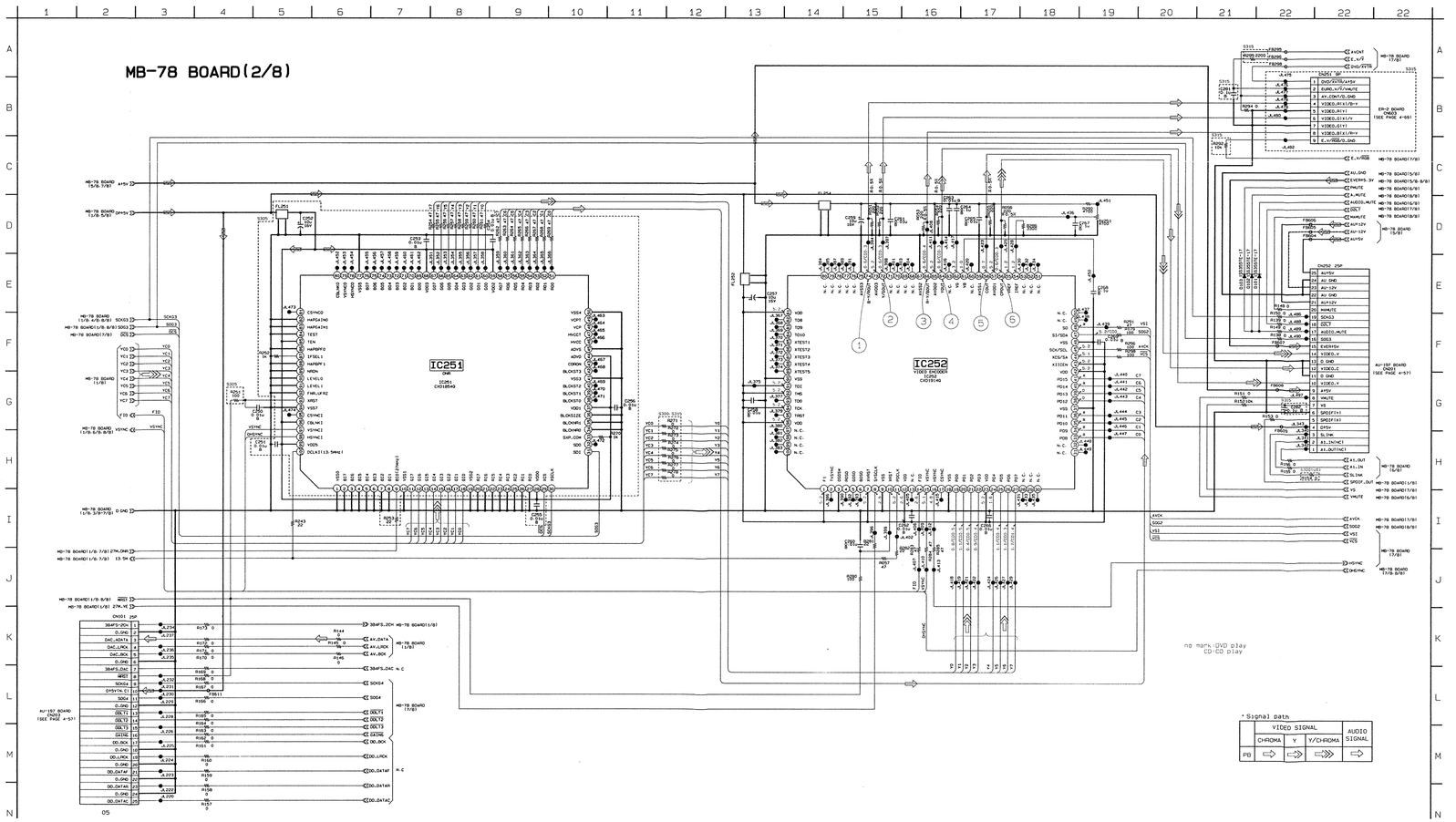
0.7 Vp-p

❹ IC252 ㉗



1.0 Vp-p

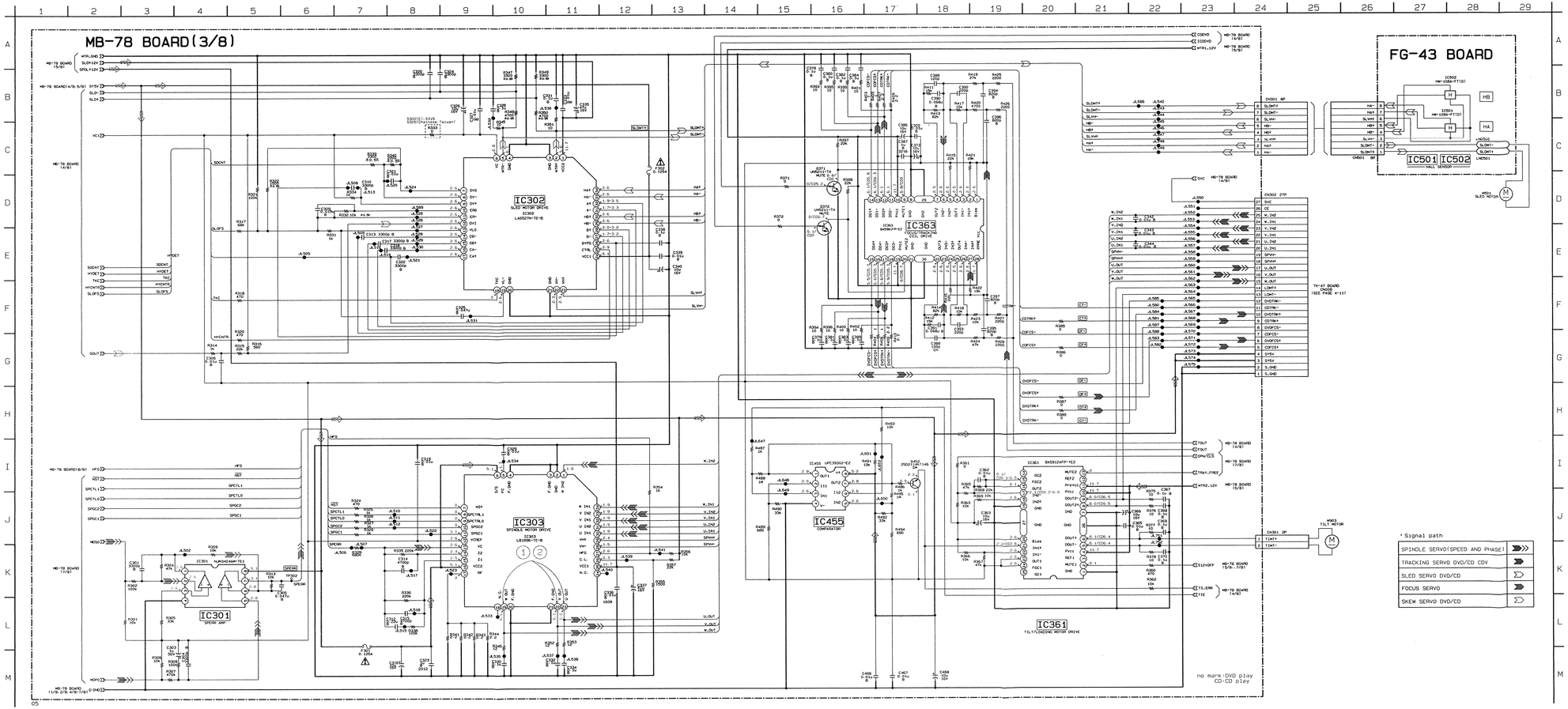
MB-78 BOARD(2/8)



VIDEO ENCODER
MB-78 (2/8)

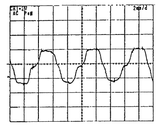
MB-78 (DRIVE), FG-43 (SLED) SCHEMATIC DIAGRAMS • See page 4-12 to 4-16 for printed wiring board.

– Ref. No.: MB-78 board; 1,000 series, FG-43 board; 3,000 series –



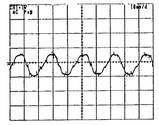
• Waveforms

❶ IC303 ⑲, ㉒, ㉓ (DVD play)



5.2 Vp-p 160 Hz

❷ IC303 ⑲, ㉒, ㉓ (CD play)



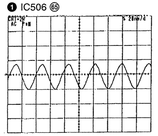
1.84 Vp-p 45 Hz

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

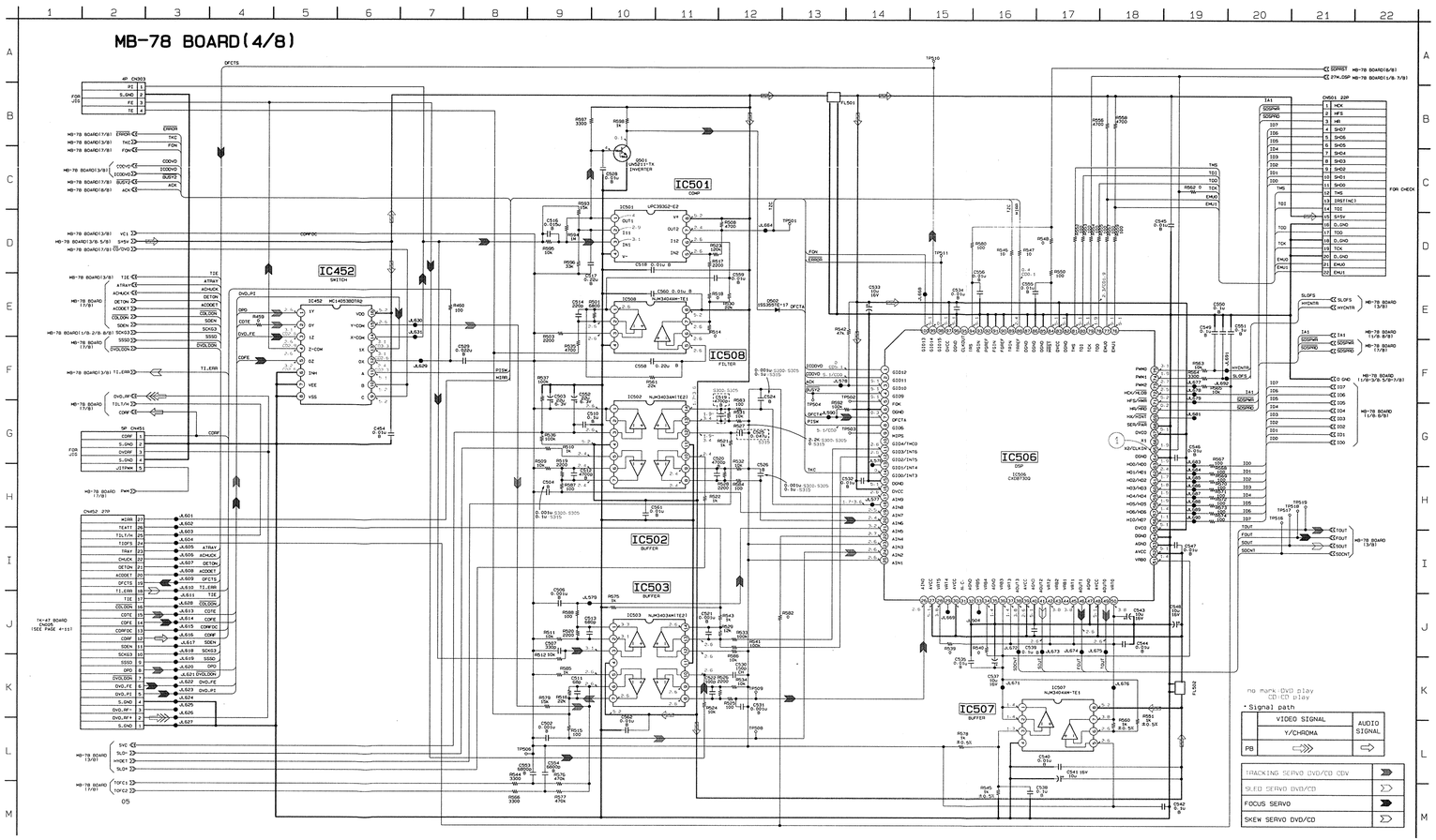
MB-78 (DSP) SCHEMATIC DIAGRAM • See page 4-12 to 4-16 for printed wiring board.
– Ref. No.: MB-78 board; 1,000 series –

• Waveform

❶ IC506 ㉘



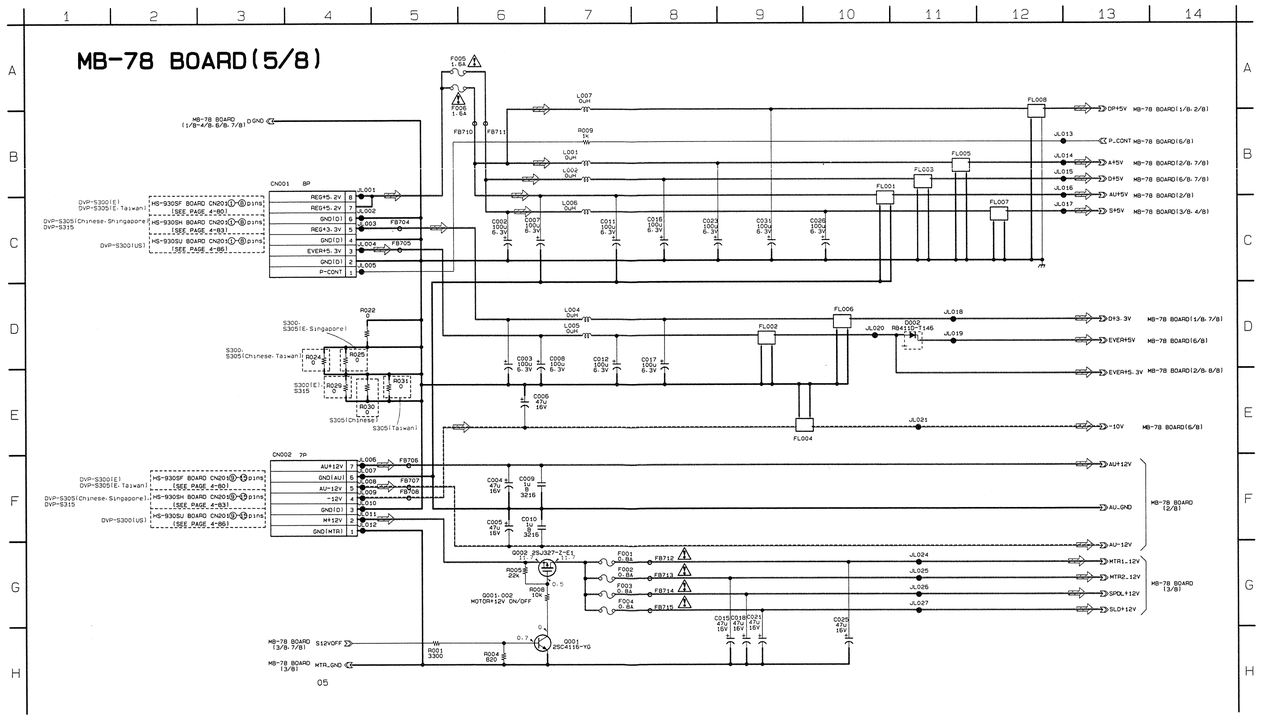
3.6 Vp-p 27 MHz



DSP
MB-78 (4/8)

MB-78 (BIAS) SCHEMATIC DIAGRAM • See page 4-12 to 4-16 for printed wiring board.

– Ref. No.: MB-78 board; 1,000 series –

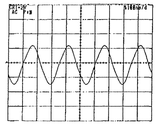


Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

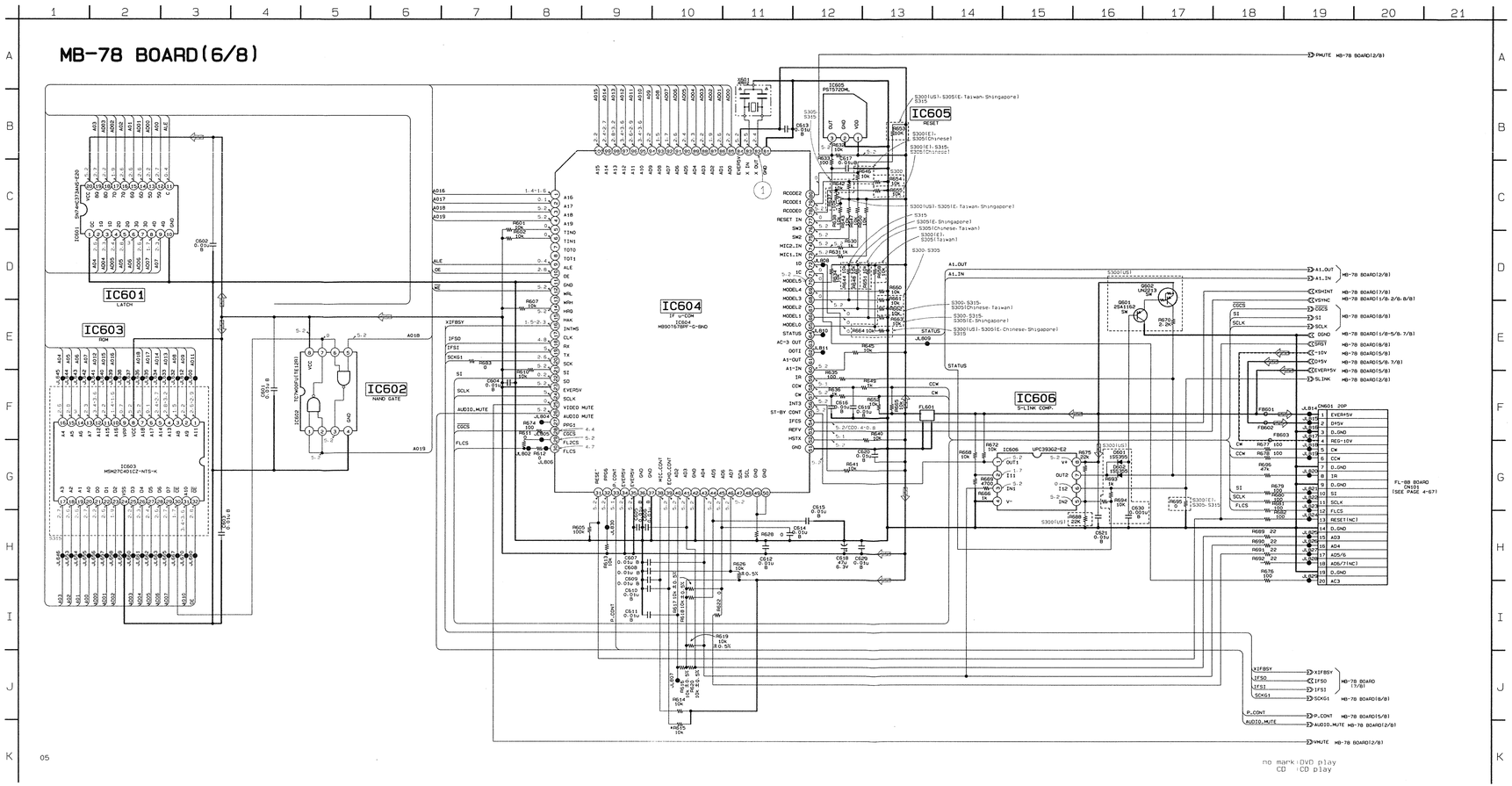
MB-78 (IF µ-COM) SCHEMATIC DIAGRAM • See page 4-12 to 4-16 for printed wiring board.
– Ref. No.: MB-78 board; 1,000 series –

• Waveform

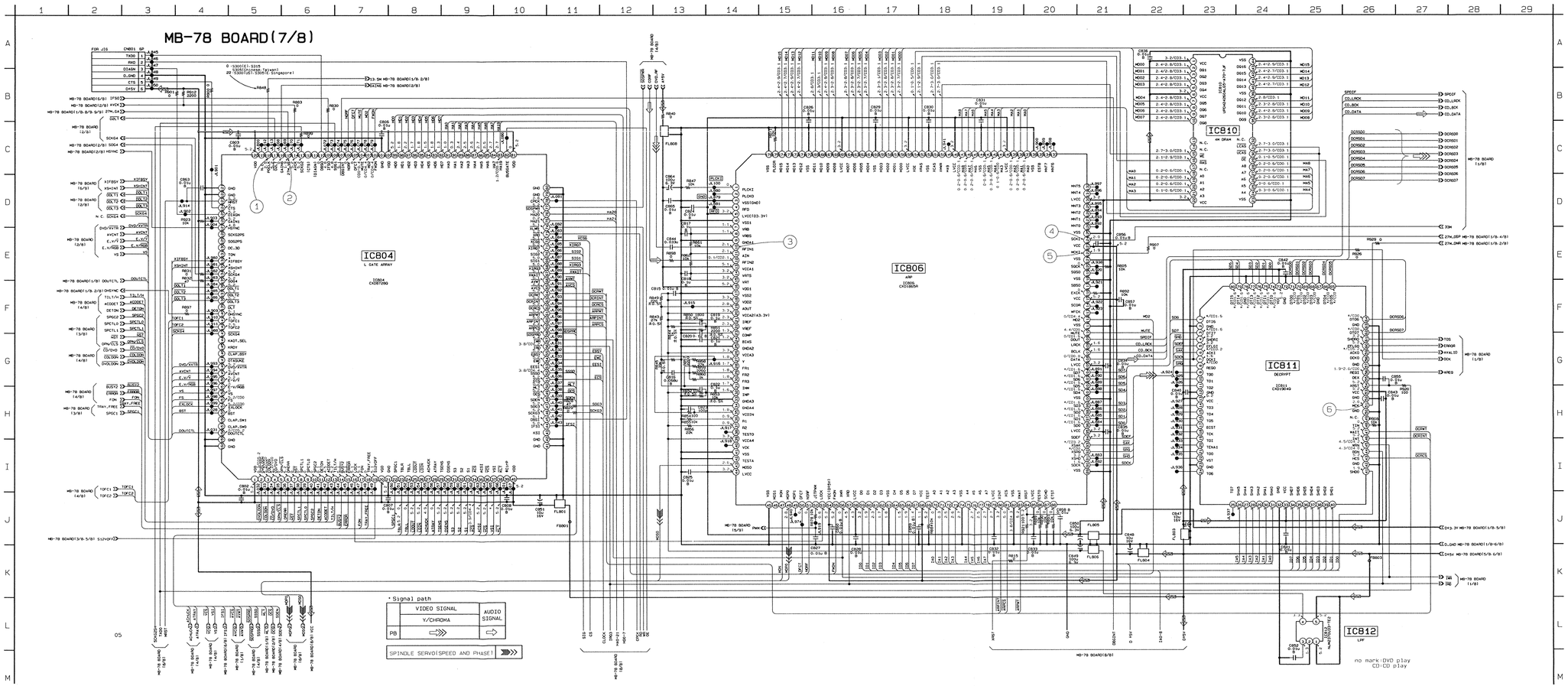
❶ IC604 (49)



5.6 Vp-p 4 MHz



MB-78 (ARP, L GATE ARRAY, DECRYPT) SCHEMATIC DIAGRAM • See page 4-12 to 4-16 for printed wiring board.
– Ref. No.: MB-78 board; 1,000 series –



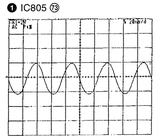
MB-78 (SYSTEM µ-COM, S GATE ARRAY) SCHEMATIC DIAGRAM • See page 4-12 to 4-16 for printed wiring board.

– Ref. No.: MB-78 board; 1,000 series –

MB-78 BOARD (8/8)

• Waveform

❶ IC805 ⑫



4.4 Vp-p 20 MHz

IC802 1M RAM

IC803 8M FLASH

IC801 EEPROM

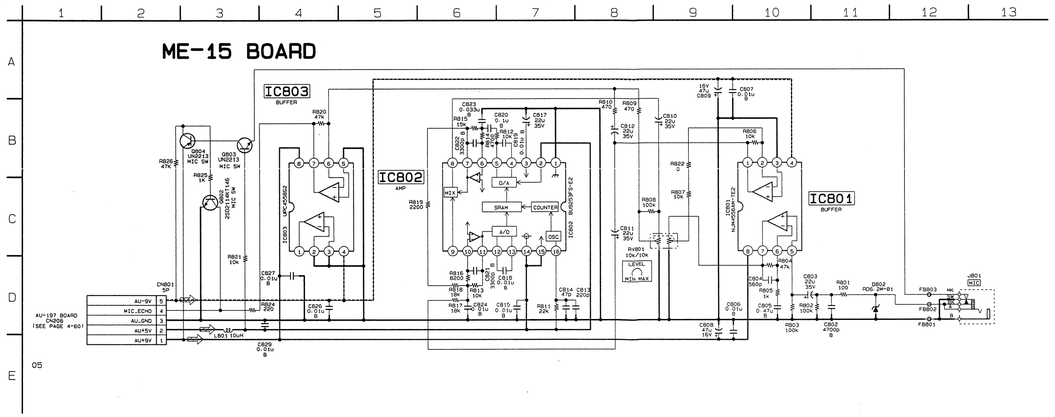
IC805 SYSTEM u-COM

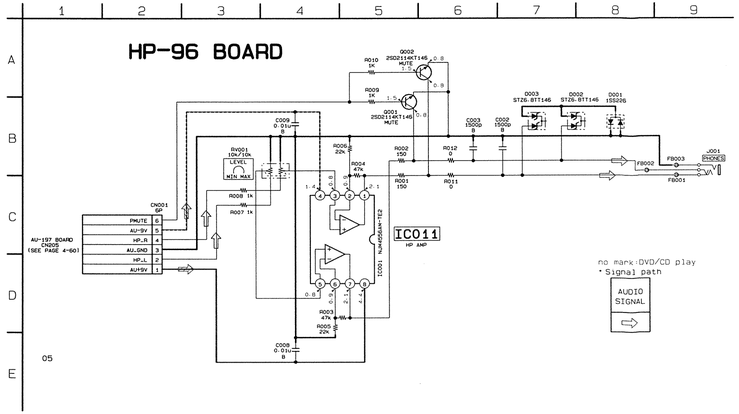
IC807 S GATE ARRAY

FOR CHECK

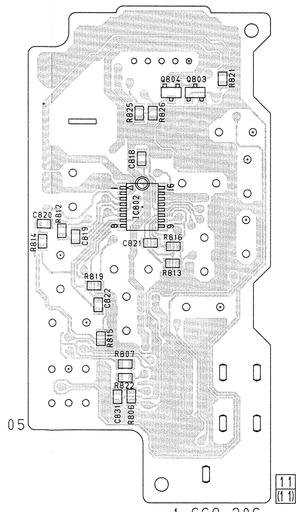
no mark:DVD play
CD:CD play

There are few cases that the part isn't mounted in this model is printed on this diagram.

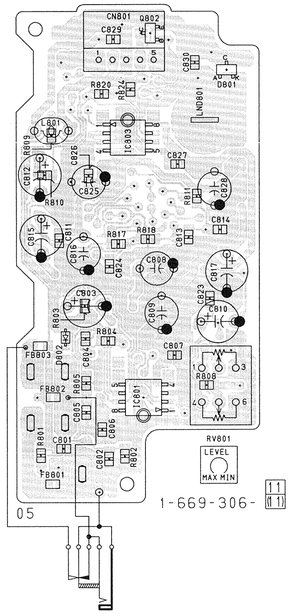




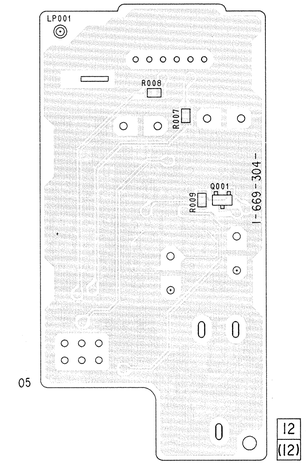
ME-15 BOARD (SIDE A)



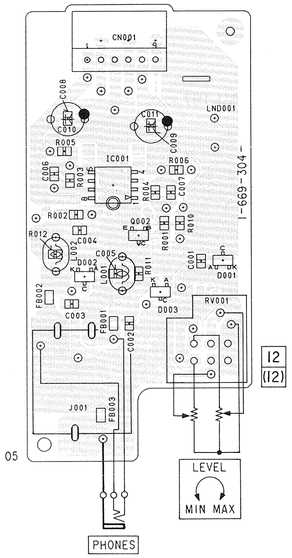
ME-15 BOARD (SIDE B)

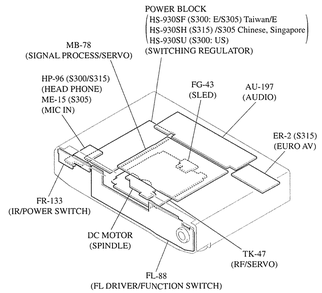


HP-96 BOARD (SIDE A)

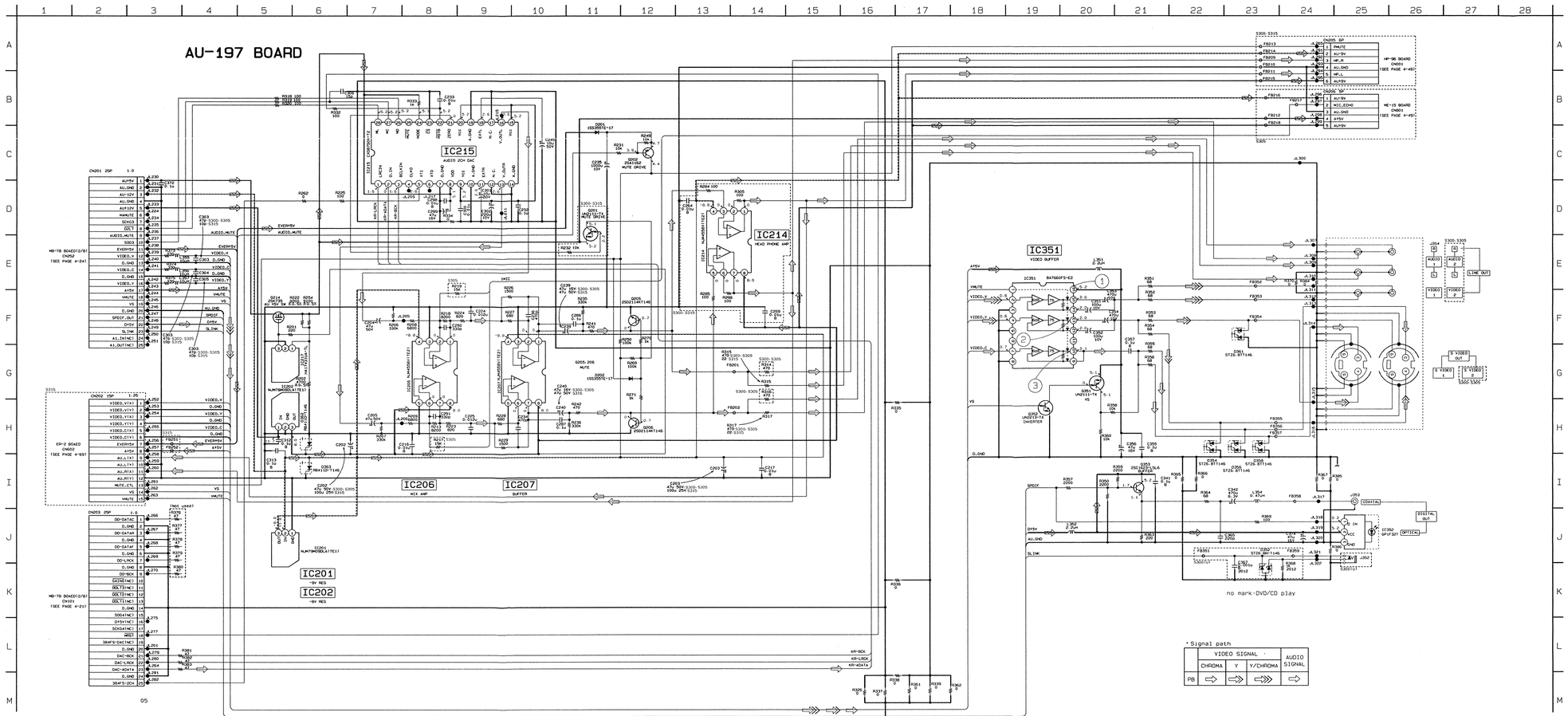


HP-96 BOARD (SIDE B)





MIC IN, HEAD PHONE
ME-15, HP-96


AU-197 BOARD
IC215
AUDIO 20K DAC
IC214
HEAD PHONE AMP
IC351
VIDEO BUFFER
IC206
MIX AMP
IC207
BUFFER
IC201
-9V REG
IC202
-9V REG
IC352
OPTICAL
CN201 25P
CN202 15P
CN203 25P
CN204 5P
CN205 5P
CN206 5P
CN207 5P
CN208 5P
CN209 5P
CN210 5P
CN211 5P
CN212 5P
CN213 5P
CN214 5P
CN215 5P
CN216 5P
CN217 5P
CN218 5P
J300
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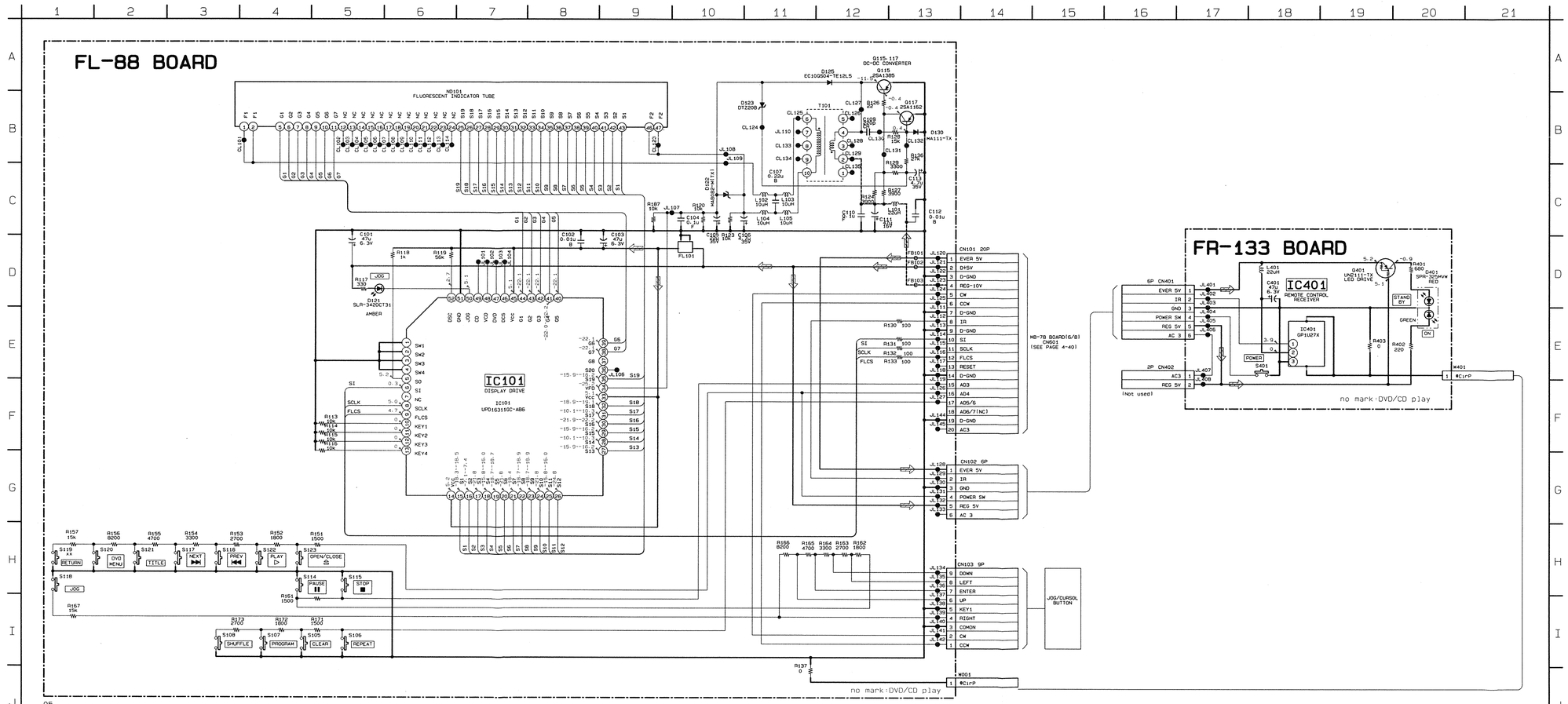
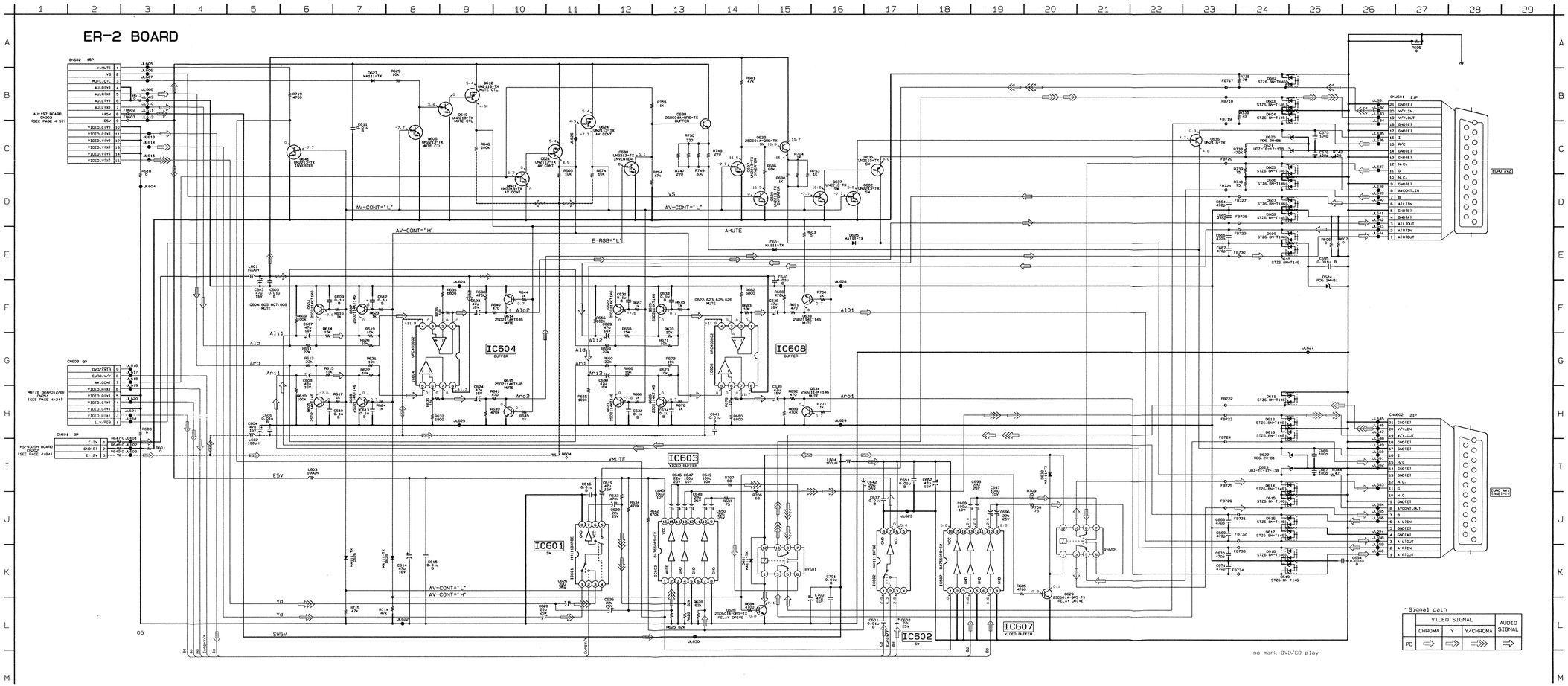
J339


FL-88 BOARD
ND101
FLUORESCENT INDICATOR TUBE
IC101
DISPLAY DRIVE
IC101
UPD163110C-ABS
CN101 20P
EVER 5V
D+5V
D-GND
REG-10V
CW
CCW
D-GND
IR
D-GND
SI
SCLK
RESET
FLCS
D-GND
AD3
AD4
AD5/6
AD6/7(NC)
D-GND
AC3
CN102 6P
EVER 5V
IR
GND
POWER SW
REG 5V
AC 3
CN103 9P
DOWN
LEFT
ENTER
UP
KEY1
RIGHT
COMON
CW
CCW
JOG/CURSOL BUTTON
MB-78 BOARD(6/8)
CN501
(SEE PAGE 4-40)
no mark:DVD/CD play
FR-133 BOARD
6P CN401
EVER 5V
IR
GND
POWER SW
REG 5V
AC 3
2P CN402
AC3
REG 5V
(Not used)
IC401
REMOTE CONTROL RECEIVER
IC401
GP1U27X
STAND BY
GREEN
ON
POWER
no mark:DVD/CD play

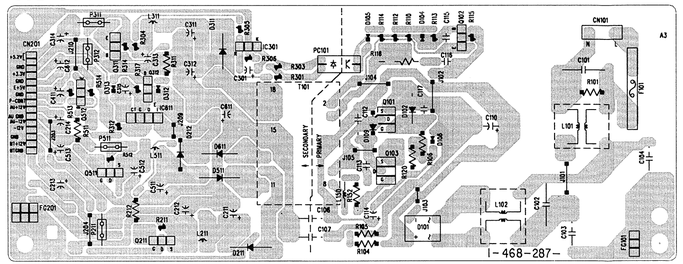
ER-2 (EURO AV) SCHEMATIC DIAGRAM
– Ref. No.: ER-2 board; 2,000 series – (DVP-S315)

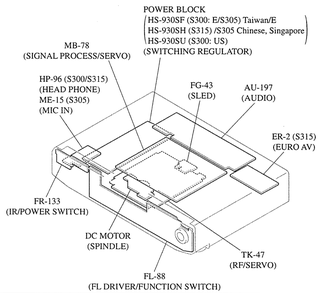


POWER BLOCK (HS-930SF) (POWER) PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM
– Ref. No.: POWER BLOCK (HS-930SF board); 4,000 series – (DVP-S300 (E model)/S305 (E, Taiwan model))

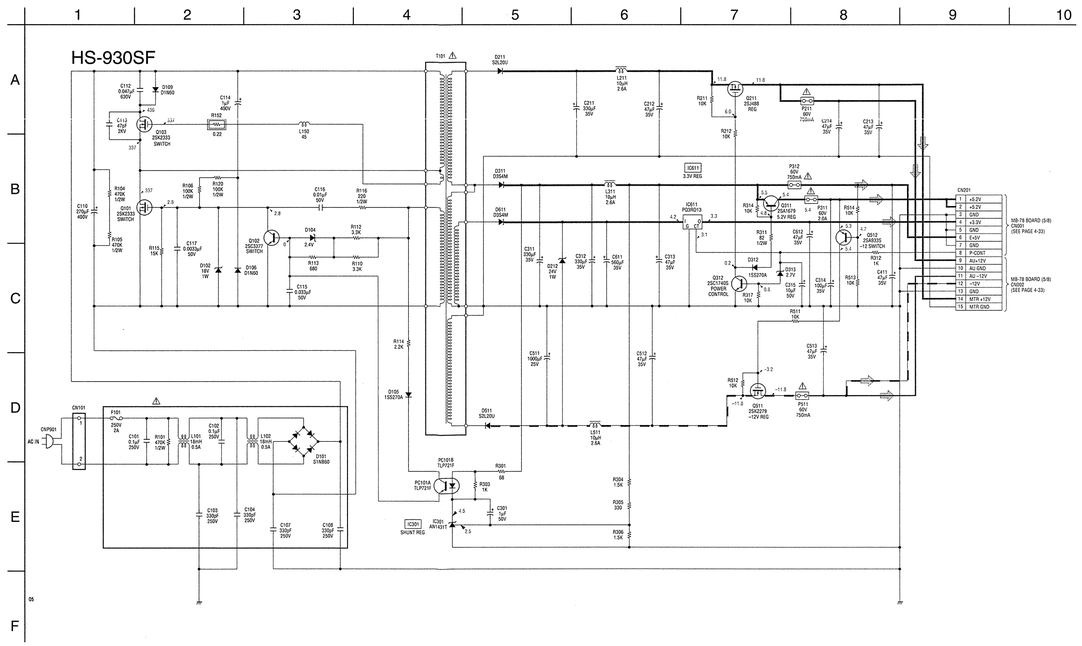
There are few cases that the part isn't mounted in this model is printed on this diagram.

HS-930SF BOARD





SWITCHING REGULATOR
HS-930SF

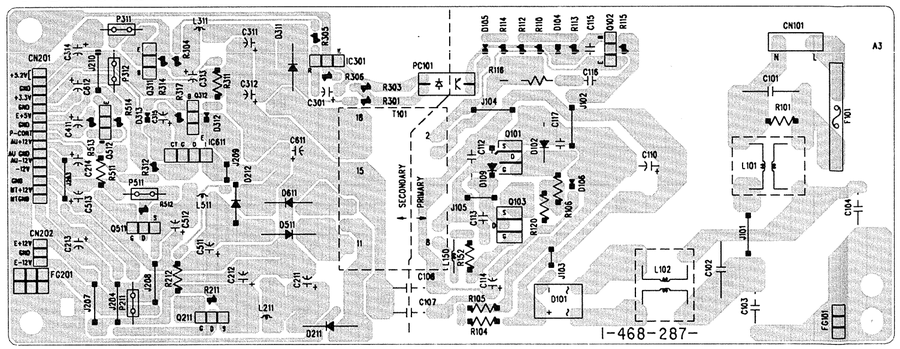


Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

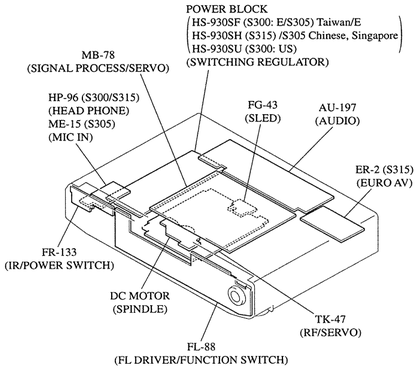
POWER BLOCK (HS-930SH) (POWER) PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM
– Ref. No.: POWER BLOCK (HS-930SH board); 4,000 series – (DVP-S315/S305: Chinese, Singapore)

There are few cases that the part isn't mounted in this model is printed on this diagram.

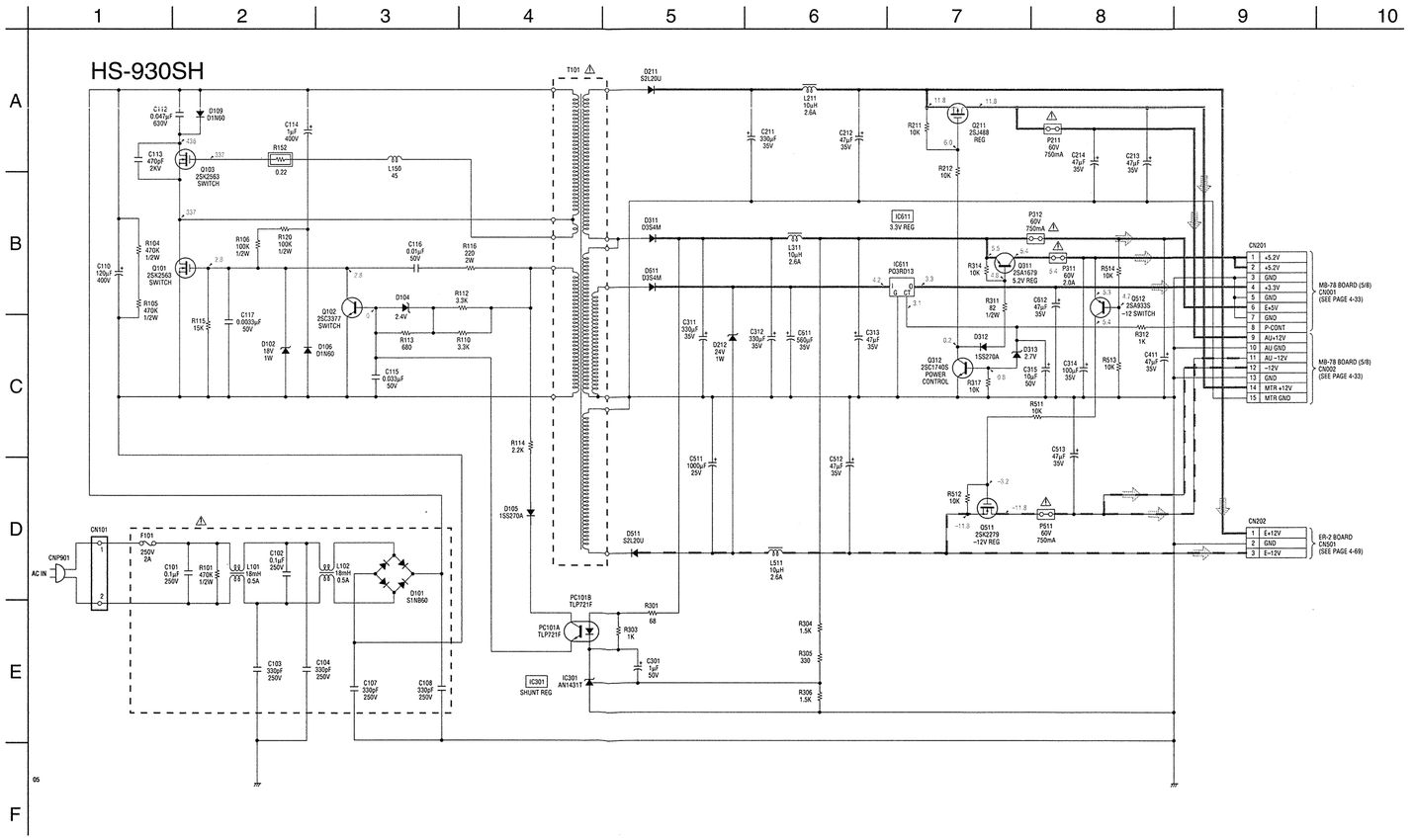
HS-930SH BOARD



21
(21)



HS-930SH



Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

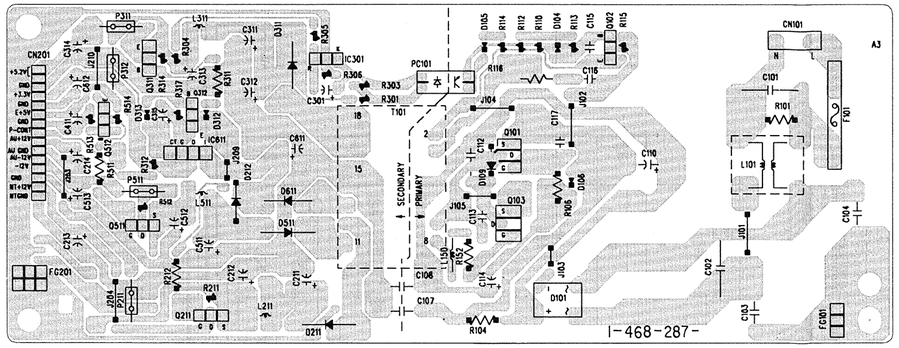
SWITCHING REGULATOR
HS-930SH

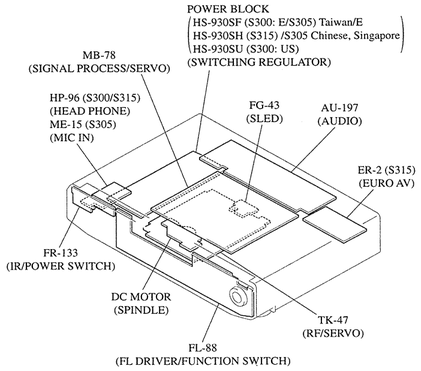
POWER BLOCK (HS-930SU) (POWER) PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM

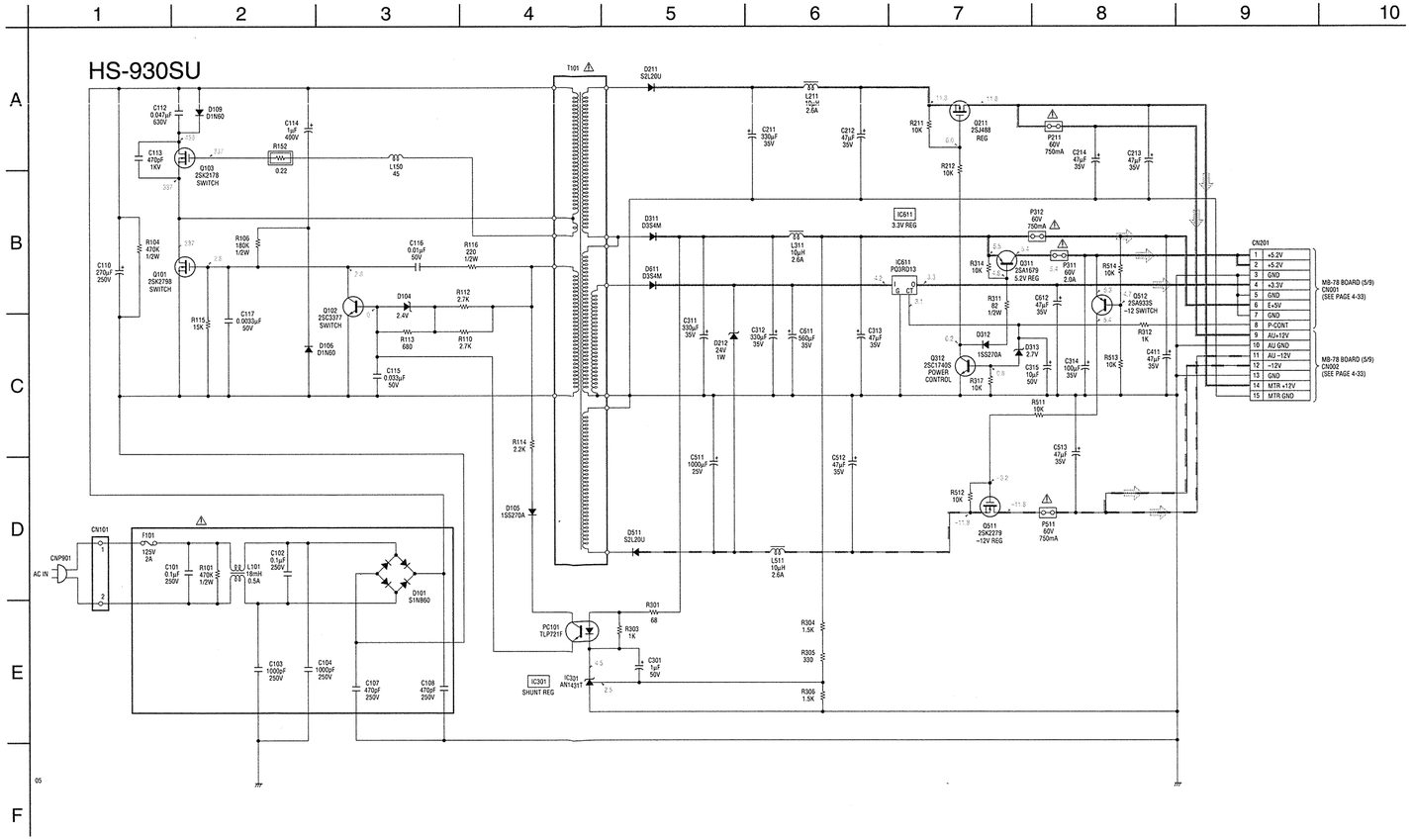
– Ref. No.: POWER BLOCK (HS-930SU board); 4,000 series – (DVP-S300 (US model))

There are few cases that the part isn't mounted in this model is printed on this diagram.

HS-930SU BOARD







Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.